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LONDON  
**INDUSTRIAL**  
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**Arms  
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# LONDON INDUSTRIAL STRATEGY

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## Arms conversion

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# Introduction

In March 1981 a new Labour administration was elected to the Greater London Council. It fought the election on the basis of a long and detailed manifesto, of which nearly half was devoted to industry and employment.

The manifesto promised investment in new municipal enterprises, producer co-operatives, old and new firms. For this purpose it proposed an independent organisation, the Greater London Enterprise Board (GLEB). It also undertook to produce a London Industrial Strategy and a London Labour Plan, to be drawn up by an Economic Policy Group within the GLC. The EPG has since grown from its original five members to a Directorate with responsibility for both planning and implementation, including the setting up of GLEB.

It soon became clear that what was needed, and feasible, was not so much a single plan, to be delivered from above, but a series of strategies, closely connected to struggles on the ground. The fight for jobs has involved both direct investments by GLEB and support for numerous activities and campaigns against the pressures of the market. It has involved working with and supporting different groups in different cases: workforces, unions, at times managers, perhaps a local borough, community, or resource centre, even trade unionists from abroad involved with different branches of multinationals such as Ford and Kodak.

We have now drawn these different strategies together in one volume, known as the **London Industrial Strategy**. The paper published here is one of the 23 sector studies in this volume, which themselves draw on more detailed studies and experience. They are published as the basis for a wider discussion and the beginning of a rolling programme of strategy work.

We would welcome comments and submissions on this document by 30 September 1985. We will then combine these with further work to produce a second Industrial Strategy early in 1986. Groups who would like to talk over particular ideas, points or omissions should write to the Industry and Employment Branch, Room 6b, Greater London Council, County Hall, London SE1 7PB.

Other volumes in this series, to be published later this year, are the London Labour Plan, the London Economic Strategy and the London Financial Strategy.

The 1981 Labour Party manifesto argued: 'Only a large scale investment programme aimed at key sectors of London's industry will rescue the capital's



manufacturing economy from almost total annihilation. The public sector will have to take an active role in such a strategy.'

From the First World War onwards London became one of the main manufacturing centres in Britain. In 1951 there were more than one and a half million people working in London's factories. By 1984 this figure had fallen to half a million and by the end of the 1980s it is likely to be down to 450,000. The decline has been much steeper in London than in the rest of Britain. Moreover in London there was little compensating growth of services; except in banking, professional and miscellaneous services, every major sector of London's economy lost jobs.

The result has been the largest concentration of unemployed people in the advanced industrial world. In March 1985 there were over 400,000 people officially registered as unemployed in London, and a further estimated 120,000 people wanting work. The GLC's forecasts are that unemployment in London will rise to over 600,000 if cuts in public spending and the spread of privatisation and automation continue unabated.

London's unemployment is moreover concentrated in particular areas, especially inner and east London. In Tower Hamlets registered unemployment is 23%, in Newham 21%, in Poplar male unemployment is nearly 30%. There are similar unemployment rates south of the river in Greenwich, Deptford, Peckham, Bermondsey, Lambeth and parts of Wandsworth, as well as to the north along the old river and canal industrial belts in Islington, Hackney and up the Lea Valley. In the 1980s the destruction spread to the engineering industries in west London; literally, in some cases, as factories were physically demolished. Even Heathrow, supposedly the centre of new growth, lost 13,500 jobs between 1979 and 1983 and more losses are expected, partly as a result of privatisation plans. Unemployment is now up to 15% in several boroughs of west London.

Of the jobs that are left, there is growing evidence that conditions have become worse over the last five years. Shift work has risen. Casual work has increased in local authorities, in the health service and in many ancillary services that have been privatised or contracted out. Part-time work is spreading, partly as a means of cutting wages and security. There also appears to be an increase in sweating, with more work put out to homeworkers and worsening pay and conditions in hotels, cleaning, food processing and branches of the retail trade. Those who suffer particularly from these trends are people who are discriminated against in the jobs market and who are often forced to take work on any conditions: women, black people, disabled people, and migrant workers.

The GLC's strategy is an alternative to the two traditional economic strategies: monetarism and Keynesianism. We believe that these are, respectively, destructive and inadequate.

Monetarists argue that Londoners should price themselves back into work. Despite its protestations, the government has been highly interventionist as far as its cheap labour policy is concerned. The policy of forcing some firms

out of business and others to shed labour and cut wages is an explicit one, with benefits to employers in the shape of the discipline that unemployment imposes on those still at work. According to the OECD, although the government's policies did not cause the recession of the early 1980s, it doubled its severity. In the public sector, the government has attempted, less successfully, to reproduce the employment cuts achieved in the private sector through privatisation, together with legal restraints on the unions.

Perversely from its position of weakness, the government also espouses the theories of free trade: let the US supply, for example, computer software and cable TV programmes; London can have tourists, served by sweated labour. The reality, under monetarism, is that new industries have not arisen to replace those destroyed. British management has on the whole attempted to compete through a low wage, low skill strategy. It has been slow to introduce the new manufacturing methods adopted, partly as a result of public intervention, in countries like Japan, West Germany, Italy, and even the United States.

The Keynesian alternative is not so much wrong as inadequate. Keynesians argue that, once the correct level of demand is established, production will look after itself. The organisation of production, what is produced, under what working conditions, with what technology – all this is left to the capitalist. Before the 1979 election, unemployment was already rising rapidly. Keynesianism had, and has, no solution to the problems of recession and the need for industrial restructuring. If Keynes rather than Friedman had won the election, unemployment would have continued to rise, though perhaps at half the rate. While a measure of reflation, of public works and protection may all be necessary, we believe that they can only make long-term sense if they are part of a wider strategy centered on production.

The GLC's strategies are founded on the principle of socially useful production. Production should be for social need. It should also provide work for all those who wish it in skilled and/or satisfying jobs. It is a grim truth that the majority of Londoners now spend their working lives in jobs which dispense with human skills, while others are unemployed. There are families in need of food, elderly people in need of heat and care, and a desperate shortage of good housing. We calculate that London's infrastructure requires £12,000 million of investment to keep it in even modest repair.

The GLC's powers to intervene are different in each of the three main sectors of London's economy: the domestic sector, the public sector and the private economy.

First, the domestic economy. Traditional economics takes little account of the work that is done in and around the household. Yet, while Londoners spend approximately 100 million hours a week in paid work, we estimate that they spend 180 million hours in domestic work. The boundaries between paid and unpaid work are not immutable; currently the government is attempting to transfer tasks back into the home that were previously collectively provided, as a matter of conscious policy; public provisions for the elderly, the disabled,



the convalescent and the young are all under attack. Since these tasks are overwhelmingly performed by women, their ability to do properly paid full-time work is further undermined.

One of the major concerns of the GLC has been to reverse this tide. Wherever it has influence, it has attempted to ensure that proper provision is made for the young, the old and the disabled, and that women's rights as workers are systematically promoted. It has also supported many women's campaigns and organisations, in particular for the extension of public provision and for women's access to jobs.

The public sector, including central and local governments accounts for about a quarter of all employment nationally and in London for nearly a third. The public economy grew mainly because of the inadequacy of the private sector in meeting needs, economic as well as social. It is currently threatened with cuts and privatisation in part precisely because it challenges the market's definition of socially useful production. In addition, during the recession, it offers new sources of profits for private capital: in catering, cleaning, telecommunications, health, for example.

Some of the effects of privatisation could quite easily be reversed. Others, such as the major changes taking place in energy, telecommunications, broadcasting and transport, are likely to have more serious long term social and economic consequences. The chapters of the **London Industrial Strategy** analyse these problems. They also point to problems of existing public sector industries and institutions; their excessive centralisation, their lack of accountability to their users and workers. They make proposals for changes in all these matters. Although some parts of the public sector are directly under the GLC's control, most of these changes can occur only as a result of action and campaigns to change national policies.

The GLC supports the extension of public ownership not just as an end in itself, but as a means of extending the principle of socially useful production and the involvement of the workforce in planning that process. In addition, we believe that the public system could, at little net cost to taxpayers, provide useful employment to all those who need work. Much of what people consume is provided by the state, including housing, education and many labour-intensive services; this provision could be extended, so that the public economy became more self-sufficient. An alternative economic strategy for London should start from the principle of providing a job for all, to meet the needs which so clearly exist.

Some two-thirds of the existing jobs in London are in the private sector. GLEB was set up to intervene in this private economy. Clearly it has no role to play in the major public institutions. Given the limited nature of its funds as a locally-financed institution, it is also clear that it cannot expect to have any direct effect on the major private companies and multinationals such as Ford, Kodak, GEC, even Sainsbury and WH Smith. In these cases, the GLC can still intervene through supporting their unions and it can advocate policies at a national level.

GLEB's interventions have been aimed at medium-size companies; an early decision was taken that it should not, as some had advocated, concentrate on very small companies. In addition the GLC and GLEB have gone beyond the role of merely responding passively to requests for finance. They have developed strategies for the restructuring and modernisation of whole sectors, such as furniture, clothing, instrument engineering and print. GLEB's investments are intended to promote the strategic objectives worked out for the sector as a whole.

GLEB departs in other important ways from a traditional banking role. For GLEB to invest in an enterprise, there are certain minimum requirements: rights of access of trade unions to the workforce and the adoption of a system of enterprise planning, including an equal opportunities policy for women, black people and people with disabilities, with the involvement of the workforce and their unions. In the situation of cut-throat competition that exists in many of London's industries, these requirements are sometimes seen as luxuries; this is indeed one reason why the GLC strategies insist that London's industries should compete on the basis of restructured and modernised, skilled production methods, rather than, as is now generally the case under monetarism, through intensification of sweating. But we also believe that the full involvement of the workforce is a condition of all our major objectives: socially useful production, equal opportunities, and satisfying working conditions. Thus nearly half GLEB's direct or indirect investments have financed workers' co-operatives or publicly owned enterprises.

The GLEB's investments in London have saved or created nearly 3,000 jobs. The direct impact of what GLEB can do on its own is thus limited. The proposals in the various chapters of this first edition of the **London Industrial Strategy**, taken together, add up to about 200,000 jobs, for an investment by national and local government over the next five years of nearly £3 billion. Expanded and elaborated on a national scale, they represent an indication of what could be achieved with both a local and a national policy of active public intervention in production.



## Section Three: ENGINEERING

# Arms conversion

Arms CO

### Summary

1. About 100,000 jobs in the  
industry. The growth rate, however,  
is declining. The number of jobs in the  
industry is declining.

2. The industry is facing a  
serious crisis. The number of jobs in the  
industry is declining.

3. The industry is facing a  
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*The Lucas Aerospace Workers Combine Committee's plan for the manufacture of socially useful products has served as a model for arms conversion projects all over the world. Shown here is the prototype road-rail bus built from the workers plan.*

Photo: CAITS.

# Arms conversion

## Summary

1. About 100,000 jobs in Greater London are dependent on the defence budget. The south east, including Greater London, is more heavily dependent on defence spending to support jobs than any other region in the UK. But the total number of jobs in defence is diminishing despite increases in defence spending.
2. Assuming real annual increases in the defence budget of around 3%, it is estimated that the number of defence jobs in Greater London would fall by 15,000 over the period 1984-1988.
3. By 1988, and assuming the Trident missile programmes continues, between 2,000 and 4,000 jobs in Greater London will be connected with nuclear weapons production, support and administration.
4. Savings in defence expenditure can create a higher level of job opportunity if invested in non-military sectors of the economy. Since the vast majority of defence products and components also have a potential civil use, conversion and the development of alternative products will not necessarily be required. However, the developing of alternative markets for existing products currently going to defence will require imagination, effort and money.
5. Government, or institutional machinery of some kind, will be required to plan and co-ordinate reductions in defence spending with a programme of re-investment in non-military products if large-scale redundancies in the defence sector are to be avoided.
6. Yet we cannot wait for a change in government policy. If job loss is to be avoided planning for such eventualities needs to start now. To this end the GLC has helped to set up an arms conversion council for Greater London (the GLCC). The GLCC plans to encourage the formation of Alternative Use (or Technology Transfer) Committees at each defence location. It will assist in the preparation of plans for alternative uses of the defence facilities, including



the possibilities for transferring technology to the Third World, and campaign for their adoption. A series of conferences are being organised, for both workers and employers in the defence industries, by the Conversion Council to begin this process.

## Introduction

12.01 Employment in Greater London is heavily dependent on government defence spending. In total the defence budget generates 94,500 jobs within Greater London's boundaries: 60,000 in manufacturing industry, 20,000 civil servants in the Ministry of Defence and 14,500 members of the armed forces based in London.

12.02 The geographical spread of the defence industry throughout the UK shows a noticeable clustering in certain areas such as Strathclyde, Manchester, the West Midlands and the south east. The south east, including Greater London, is without doubt the region of greatest concentration. From Stevenage in the north to Crawley in the south there are some 64 companies which have major contracts with the Ministry of Defence. In addition there are eight MoD research and development establishments and a Royal Ordnance Factory. Roughly 40% of all defence expenditure is in the south east. It provides 300,000 civilian jobs in defence and defence-related industry. The south-east is therefore something of a defence-orientated economy, locked into the need for constant renewal of contracts for weapons systems and equipment.

12.03 The number of jobs in defence is diminishing quite rapidly despite substantial increases in defence budgets. The established trend is towards a highly sophisticated technology which is more costly but less labour intensive. Over the last two decades employment in defence has fallen by 25%, while spending has increased (in real terms) by 20%. Since 1963, 400,000 jobs in defence have disappeared and current government estimates suggest a further 200,000 will be lost by 1987-8.

12.04 Regional employment planning needs to be seen against this kind of background. The level of defence dependency in the south east means that there would be serious economic dislocation in the event of any reversal in defence spending. There is therefore an urgent need to begin preparing detailed proposals for technology transfer, the development of alternative non-military products, and alternative markets, all of which would act as a safety net and assist in smoothing industrial transition if, and when, defence spending is reduced.

12.05 To do nothing is to assume an ever-increasing defence budget and a continuation of the arms race. The GLC is opposed to that. It has expressed the need for arms reductions and lower defence spending. But in terms of industrial strategy the GLC recognises that planning for such an eventuality is essential if large-scale redundancies are to be avoided.

## Future prospects for the defence industry

12.06 Assessing the future prospects for defence contractors and jobs in Greater London, say over the next ten years, requires assumptions to be made about defence policy and spending patterns. The three broad alternative assumptions made here are:



- (a) The continuation of present policies and an annually-increasing defence budget.
- (b) Some reduction (or stabilisation) in defence spending arising (say) from changes in policy or for internal economic reasons.
- (c) The introduction of a non-nuclear defence strategy for the UK.

### First assumption: unchanged government policies

12.07 Defence expenditure for 1985-6 has been confirmed at £18,060 million. This is the seventh successive year of real growth in spending. Yet the number of jobs in defence is diminishing. A number of significant characteristics can be identified in this process of defence expenditure increases and defence employment decreases.

12.08 First, account needs to be taken of Britain's diminishing role as a colonial power. Global military commitments are no longer necessary on the

Table 1: **Employment in Defence (thousands)**

	1963	1981
<i>MoD Employees</i>		
UK Service Personnel (Regular Forces)	427	331
UK based civilians (excluding ROFs)	299	203
<i>Industrial Employment from MoD expenditure</i>		
Direct Employment		
Equipment programme, including ROFs	362	240
Other spending, including construction	130	90
Indirect Employment	379	270
Total Employment from MoD expenditure	1,597	1,134
<i>Export of Defence Equipment</i>		
Direct and indirect industrial employment	95	140
Overall Defence Employment	1,692	1,274
DEFENCE SPENDING (£ million 1981-2 cost terms)	10,345	11,478

Source: Ministry of Defence

same scale. Therefore less military equipment is required, fewer workers are required to produce it, fewer armed forces to operate it, and fewer civil servants to administer defence policy.

12.09 However, adjustment to a new role in world affairs is not the end of the matter. The trend towards a diminishing overall number of weapons systems and delivery platforms continues. In 1950 the Royal Navy had 376 warships (including submarines), the RAF had 1,500 front-line aircraft, and the Army had 1,100 tanks. In 1980 the corresponding figures were: 97, 500 and 800.

12.10 Ships, tanks, aircraft and missiles are also becoming much more lethal and more versatile in function. Accuracy, range and destructive power have all improved dramatically, so again fewer are required. Sir Ronald Mason, former Chief Scientist at the Ministry of Defence, referring to the complex defence strategy debates going on in Europe, says:

If these debates are reduced to a single question it is: 'What technologies will provide for force multiplication over the next 15 years?' Force multiplication means enhancing capability through improving individual weapons systems rather than through increasing their number.

That can only mean further shrinkage in the total amount of military hardware produced.

12.11 But such performance improvements are costly. For example, according to the 1982 Defence White Paper, the Type 22 frigate is three times as expensive as the Leander-class frigate; the Harrier aircraft is four times the cost of the Hunter; and a new artillery shell is double the price of its predecessor. The programme cost of 385 Tornado multi-role combat aircraft will be over £12 billion. That exceeds the real cost of the entire Second World War Spitfire programme of 21,000 aircraft.

12.12 Weapons design has attempted to incorporate the latest (state of the art) developments in science and technology. More effort and more expense is required to obtain smaller and smaller improvements in performance. A recent government White Paper stated that 'The total amount spent on procurement with British industry will continue to rise, but with a shift of emphasis towards the advanced technologies rather than the older labour-intensive areas.'

12.13 In 1983 half of the total procurement budget went to two industries, aerospace and electronics. The research-intensity of military products is now about 20 times that of civil products. Research and development accounts for 30% of the cost of military production as compared to 1.3% of the cost of all manufacturing output in the UK.

12.14 The composition of the labour force in defence has changed substantially. There is now a much larger proportion of highly skilled, and therefore high cost, labour. That must generate pressures to reduce overall employment numbers. Marconi Space and Defence Systems and Marconi Underwater Systems, for example, employ a total of 26,000 workers, 9,000 of



whom are staff grades and 2,000 of these are honours graduates. The MoD alone employs 35,000 scientists and technologists in its R&D and other establishments.

12.15 With high fixed costs of R&D being spread over a smaller number of units (either because fewer are required or fewer can be afforded within the budget) the benefits of mass production are diminishing. Equipment is taking an ever-increasing share of the defence budget. Since 1950 it has risen from 30% to 46% of total spending. But the trend has accelerated during the last five years, mainly at the expense of spending on personnel. Between 1979 and 1984 the number of MoD civil service jobs — industrial and non-industrial — dropped by 53,000. Industrial job loss accounted for 30,000 of these. Armed forces personnel remained relatively stable over the same period.

The main areas of civilian job loss were:

*MoD civilian job loss 1978-9 to 1983-4*

Dockyards	8,600
Storage & Supply	5,900
ROFs	4,800
Research & Development	7,000
BAOR	4,400
Other support functions	12,000

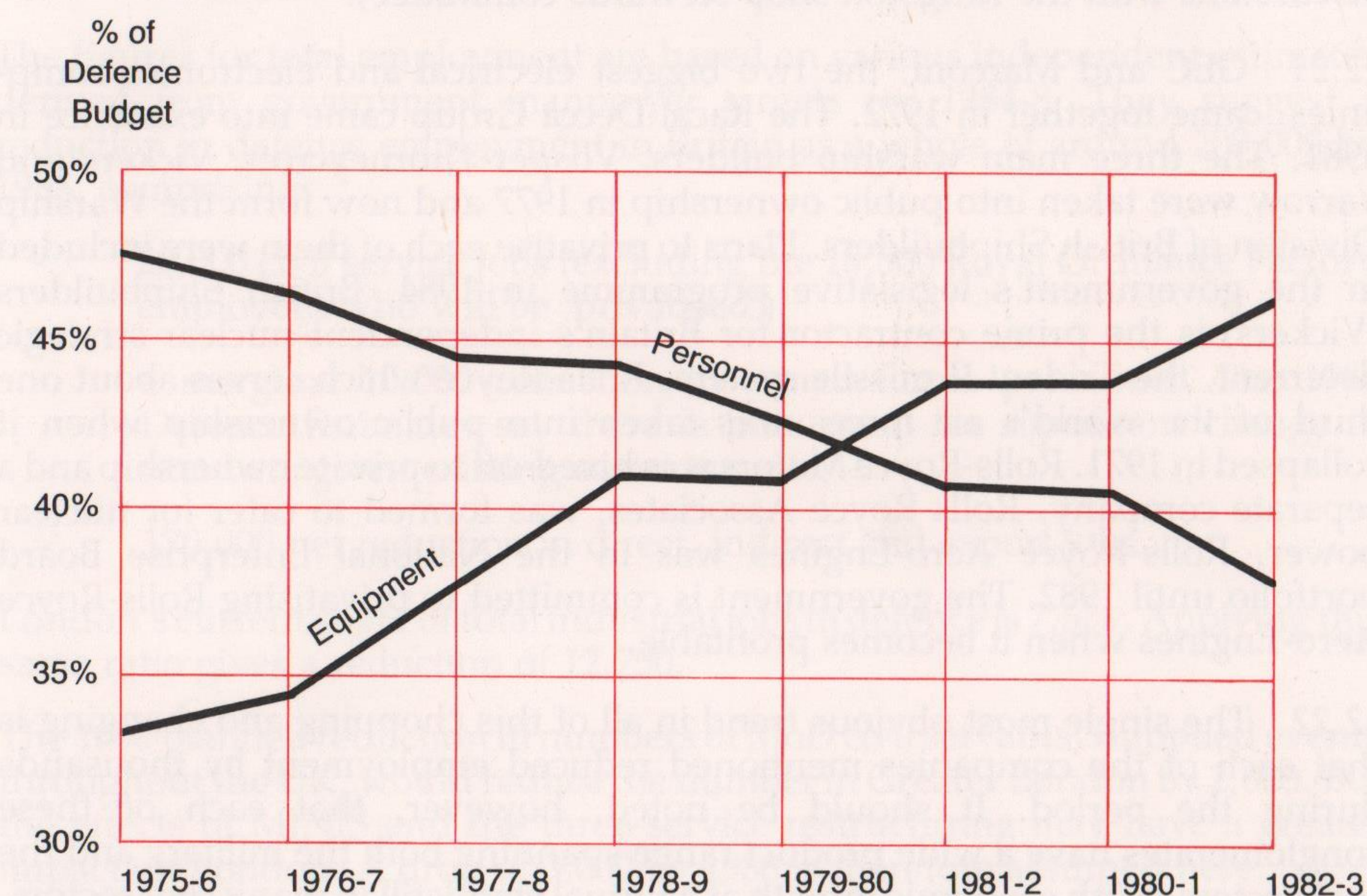
Source: 1983 Defence Estimates Table 5.2

12.16 In theory, increased defence expenditure, together with an increased proportion of budget going to equipment, should have led to higher levels of employment in direct defence manufacturing. But, as Table 1 shows, there was a reduction of 162,000 over the period 1963-81 suggesting a growing capital to labour ratio in direct manufacturing. That, in turn, ought to have generated more jobs indirectly in other sectors providing equipment, goods and services for defence manufacturing. But indirect employment over the same period fell by 109,000.

12.17 One explanation could be an increase in the import propensity of UK defence manufacturing in terms of military components and production equipment. An added explanation may be unfavourable exchange rates which would have the same effect. Virtually all of Britain's military imports are from industrialised countries whereas 80% of military exports go to Third World countries. The Tornado aircraft (which is produced jointly by West Germany, Italy and the UK) is an example of how this can happen. The Comptroller and Auditor General reported that because of changes in relative pay, price levels, and exchange rates, the original work-sharing allocations had resulted in an adverse imbalance of £250 million against the UK.

12.18 'Leakage' of UK defence spending, whether through adverse exchange

**Figure 1: Relative percentage of defence budget**



Source: TGWU

rates, increased imports, or direct government purchases abroad such as the Trident D5 missile, could partly explain why there are fewer jobs all round in defence. Another characteristic of defence is its changing corporate structure and ownership through mergers and take-overs, which has brought varying degrees of rationalisation and redundancy. This process has resulted in one-third of all defence manufacturing jobs in Greater London being located within only nine large corporations.

12.19 Britain's biggest defence contractors have all undergone considerable change in recent years. British Aerospace (BAe) had total sales of military aircraft, guided weapons systems and support services amounting to £1,472 million in 1982. It only came into existence as a corporate entity in 1977 and brought together four major companies: British Aircraft Corporation, Hawker-Siddley Dynamics, Hawker-Siddley Aviation and Scottish Aviation. British Aircraft Corporation was itself partly owned by English Electric (a subsidiary of GEC) and Vickers. During public ownership, BAe acquired Sperry Gyro, another major defence contractor. BAe has since been privatised and is now owned jointly by government and a variety of private companies, notably banks and insurance companies. It also has some foreign shareholders.

12.20 Currently there is speculation about a merger/take-over involving BAe, GEC, Marconi and Thorn EMI. There is also a possibility that BAe may conduct its own rationalisation by closing its Kingston location and moving production



to its Weybridge site. (The Greater London Conversion Council is involved in discussions with the Kingston shop stewards committee).

12.21 GEC and Marconi, the two biggest electrical and electronics companies, came together in 1972. The Racal-Decca Group came into existence in 1981. The three main warship builders, Vosper-Thorneycroft, Vickers and Yarrow were taken into public ownership in 1977 and now form the Warship Division of British Shipbuilders. Plans to privatise each of them were included in the government's legislative programme in 1984. British Shipbuilders (Vickers) is the prime contractor for Britain's independent nuclear strategic deterrent, the Trident II missile system. Rolls-Royce which serves about one third of the world's air forces was taken into public ownership when it collapsed in 1971. Rolls-Royce Motors was hived-off to private ownership and a separate company, Rolls-Royce Associates, was formed to cater for nuclear power. Rolls-Royce Aero-Engines was in the National Enterprise Board portfolio until 1982. The government is committed to privatising Rolls-Royce Aero-Engines when it becomes profitable.

12.22 The single most obvious trend in all of this chopping and changing is that each of the companies mentioned reduced employment by thousands during the period. It should be noted, however, that each of these conglomerates have a wide product range spanning both the military and the civil sectors. With economic growth at a virtual standstill in many civil sectors, even those companies with healthy orders for defence equipment are experiencing problems. London-based companies such as Plessey, BAe and Thorn EMI have all had to contract their civil product operations in the last two years.

12.23 Profits from defence contracts are no guarantee that such companies will be able to stem the drift towards overall corporate financial crisis. That is a further problem for London's defence industry so long as the economy as a whole is stagnating.

12.24 If defence expenditure continues to increase at around 3% a year and the trends and spending patterns already identified also continue, then

Table 2: Estimated future decline in defence jobs in Greater London (assuming unchanged spending patterns)

	1984	1988
Total industrial employment	60,000	47,250
MoD non-industrial civil servants	20,000	17,000
Armed forces personnel	14,500	14,500

Source: Independent estimates based on government manpower targets for 1984-8.

employment in Greater London is likely to decline by a further 15,750 between 1984 and 1988 (see Table 2).

The figures for total employment are based on various independent estimates derived from government manpower targets for 1984-8. They suggest a reduction in defence employment in Britain as a whole of around 200,000 by 1988, comprising:

- 20,000 civil service jobs (excluding the 18,500 Royal Ordnance Factory employees who will be 'privatised').
- a marginal 10,000 reduction in armed forces personnel. The 1984 Defence Estimates say there is little room for significant change in numbers given existing commitments.
- 170,000 net reduction in direct, indirect and export jobs.

London's current share of total industrial jobs in defence is 7.5%. Applying this same ratio gives a reduction of 12,750.

The 10% planned reduction in numbers of MoD civil servants, if applied evenly throughout the UK, would reduce the number in Greater London by 2,000. But the effects of MINIS and the three-service restructuring may have a greater impact on London. A drop of 3,000 by 1988 is therefore assumed here.

The armed forces based in London are largely concerned with ceremonial duties — at the Royal palaces, for example. But London, because it is the seat of government also has a disproportionate number of SAS, bomb-disposal and anti-terrorist units, as well as security, military intelligence and 'minder' squads. It is unlikely that these numbers will change radically in the near future.

## Second assumption: some reduction in defence spending

12.25 At the end of the Second World War there were 5.1 million in the armed forces and 3.9 million producing for the military. Over a period of 18 months 4.3 million were released from the forces and 3.5 million from military production. But the working population fell by only 1.3 million; just over a million of whom were women. Registered unemployment rose by only 150,000. Defence expenditure fell from 50% of GDP to 7.5%.

12.26 In 1963, the Economist Intelligence Unit conducted an analysis of this transition and concluded:

From the viewpoint of both output and employment, the disarmament programme at the end of the 1939-45 war was carried out with a minimum of friction and dislocation this clearly indicates that, given the right circumstances, a disarmament programme of considerably greater proportion than would now be necessary can be carried out without major upset to the economy as a whole.



12.27 Perhaps the most significant factor here is the role played by women. At times of war, they have moved in and out of production in vast numbers, including sectors traditionally perceived to be men's work. In this light, conversion raises what is possibly the best opportunity for women and others disadvantaged in the labour market to enter into the new jobs that are created on terms which are equal to those of able-bodied, white males. But this must be a matter of policy.

12.28 After the Korean War and over the period 1952-6, military expenditure dropped from 8.8% of GDP to 7.2%. Unemployment dropped marginally. It would be wrong to assume too much about the ease of transition from these examples. The economic circumstances of the 1980s are somewhat different to the 1940s and 50s. Nevertheless they do show what is possible, given alternative investment programmes and the government machinery necessary to carry them through. The Ministry of Supply and other war-time planning apparatus were used for a long time after the war ended to coordinate the run-down in military spending and reconstruct civil sectors.

12.29 More recently, J.P. Dunne and R.P. Smith used the Warwick University Institute for Employment Research's version of the Cambridge Growth Project Model to investigate the effects of a reduction in military spending on industrial output and employment. Using the 1983 Review of the Economy and Employment two simulations were conducted. The first assumed a reduction in military spending of about one-third (say £5 billion in 1983) and that other public expenditure was increased by an equivalent amount. Total public expenditure was kept constant. The effect over the period 1983-7 was:

Total defence employment	- 250,000
Other employment	+ 350,000
Gross Domestic Product	+ 0.5%
Prices (CPI)	- 1% in first year (smaller differences thereafter)

12.30 The second simulation again assumed a reduction in defence spending of one-third (again £5 billion) but with no compensating increase in other areas. The effect over the period 1983-7 was:

Total defence employment	- 250,000
Other employment	nil
Gross Domestic Product	- 1.28%
Prices (CPI)	- 1.51%

12.31 Another, slightly different, policy change has been examined, namely that Britain should reduce its defence expenditure to the same average proportion of GDP as that of our European NATO allies. That would have involved a reduction from 5.3% to 3.5% of GDP or £4.7 billion (at 1983-4 prices).

Most economists assessing a change of this magnitude are agreed that the resultant minimum loss of jobs in defence would be in the region of 250,000 over a five year period. For comparative purposes it should be noted that cuts in the public sector over the period 1977-82 reduced employment by over 300,000.

12.32 Such estimates of job loss arising from defence cuts are, of course, general econometric calculations across the economy as a whole and make no attempt to measure the effect of cuts or cancellations in specific weapons systems or procurement contracts. If there is to be any reduction in defence spending over the next three to four years it seems likely to be of smaller proportions than those examined above. Defence expenditure for 1985-6 is to be £18,060 million; this represents a 3% real increase over the previous year. Press speculation suggests that the following year, 1986-7, will see a reduction of about 0.5% or £85 million and a further cut of £1 billion the year after that. A review of the Defence Budget conducted by a cabinet committee would appear to have concluded that the costs of major projects already in the pipeline have gone out of control and cannot be met within future spending plans. Military equipment costs have been increasing at a rate of inflation 6-10% faster than the general rate. There are inherent difficulties in accurately estimating costs over a procurement programme which can last as long as 15-20 years, such as Tornado and Trident. Rarely does an initial estimate equate to eventual cost.

12.33 Whatever reductions in spending occur they are likely to be spread thinly across a range of contracts and on a rolling basis over a number of years. Given existing defence commitments and adherence to existing strategy, no single major project is likely to be cancelled. Postponements and delays, combined with some creative accountancy, are more likely. No one, except the MoD, can know precisely which contracts will be reviewed. But obvious candidates would be the Nimrod Airborne Early Warning System, the Emerging Technology programme, the Type 23 frigate, the Trident Missile Programme and the Agile Combat Aircraft.

12.34 If postponements, cuts or cancellation did occur in these projects then the following companies in Greater London would be affected:

Marconi Avionics  
 Marconi Space and Defence Systems  
 Marconi Underwater Systems  
 Plessey  
 Gresham Lion  
 Lucas  
 Thorn EMI  
 Sterling Metals  
 Muirhead Vatric Racal

An unidentifiable number of small to medium-sized companies subcontracting to the companies above (and to others outside London) would also be affected.



12.35 The MoD itself may decide on further internal economies in the number of civil servants, both industrial and non-industrial. The Royal Small Arms Factory at Enfield has so far escaped the substantial redundancies announced in Royal Ordnance Factories. But that was before the latest suggestion of further economies.

### Third assumption: a non-nuclear defence strategy

12.36 The precise amount of spending on Britain's nuclear force is difficult to measure. The MoD's *Functional Analysis of Defence Spending* shows the amount spent on 'Nuclear Strategic Force' as 2.4% of the budget, or around £400 million. But this is a narrow calculation which takes no account of other nuclear support costs hidden under separate headings. There is no published government figure for total spending which would include R&D, production, support and operational costs of strategic, long-range theatre, and tactical nuclear weapons. The Armament and Disarmament Information Unit at the University of Sussex has estimated that 37 of the 55 detailed sub-headings of the analysis (Table 2.2 of the 1983 Defence Estimates) have a nuclear component cost additional to the Nuclear Strategic Force.

12.37 The Alternative Defence Commission at Bradford University draw attention to the main difficulty in estimating total nuclear expenditure or the number of jobs dependent on it:

Nuclear weapons are now so integrated into the British forces that it is impossible to disentangle which jobs arise from nuclear work specifically, as opposed to general defence work. Of Britain's current nuclear-capable weapons systems only Polaris is solely nuclear, every other system is dual-capable.

12.38 It could be argued for example that since Tornado has a nuclear role, the jobs (and costs) associated with its manufacture, operation and support services should come under the nuclear heading. That would mean including the 14,000 jobs at British Aerospace in Preston, as well as others at Marconi, Ferranti and all of those companies producing components which go into Tornado. A large proportion of the 11,000 workforce at Vickers in Barrow are involved directly in nuclear work, previously Polaris and now Trident, as well as the production of nuclear-waste containers. The maintenance, servicing and refurbishing of the Polaris/Chevaline system will provide around 3,000 jobs at Faslane, Coulport and Rosyth Dockyard. The number engaged in the manufacture of nuclear warheads at Burghfield, Llanishen and the Atomic Weapons Research Establishment, Aldermaston, is classified; similarly at British Nuclear Fuels the numbers engaged in producing and supplying plutonium and other special nuclear materials is secret. But in total there is unlikely to be less than 4,000 jobs across these establishments.

12.39 The Institute of Professional Civil Servants prepared a special report for its members on the effect of a non-nuclear defence on civil service jobs. It

estimated that some 6,000 civil servants 'in IPCS grades' are employed on nuclear weapons, their delivery systems, or related servicing or support. There will of course be additional numbers in other grades.

12.40 The 1984 Defence Estimates give a figure of 3,800 civilian and 2,100 armed service jobs created by strategic nuclear defence expenditure of £384 million. Thus the average cost per job is £65,000. The same figures for defence expenditure *as a whole* gives an average cost per job of £31,000. For further comparison it should be noted that the average cost of each job created by the Greater London Enterprise Board was £4,200.

12.41 Such wide diversity points to the need for more work to be done on government statistics concerning the number of jobs connected with Britain's nuclear defence strategy. It is becoming increasingly important to establish a greater level of accuracy about total nuclear costs. The share of the budget absorbed by the strategic nuclear force doubled between 1978-9 and 1983-4. It will increase even more so during the next five to ten years when Trident expenditure gets underway. The government estimated that Trident alone would consume 6% of total defence budget but that was before costs began to rise.

12.42 The drop in the value of sterling relative to the US dollar has added nearly £1 billion to the cost of Trident since the Defence Estimates were published in April 1984. Independent sources put Trident's share of the defence budget at 10% per year over the 15-20 year programme. Malcolm Chalmers of Bradford University estimates that by 1988 the share of the defence budget spent on nuclear weapons of all varieties could be as high as 16%.

12.43 Making allowances for Trident expenditure in the US, that would still provide nearly 100,000 jobs in the UK which were dependent to some extent on nuclear expenditure. The £5 billion Trident expenditure in the USA will of course support jobs in the American defence industry. Using the rough measuring rod of London's share of total defence employment (7.5%) that would mean a job loss of 7,500 if all nuclear expenditure ceased. But closer examination of nuclear weapons production suggests that London's involvement is well below average. Nuclear research and development, warhead production and assembly, plutonium supply and nuclear generator production are all done in other parts of the UK.

12.44 It is in the area of components for the nuclear industry or nuclear delivery systems that London companies have an interest:

GEC-Marconi produce electronic equipment for Tornado at Wembley and Stanmore.

Plessey at Ilford are involved in production of sonar and other navigational equipment for Trident.

Gresham-Lion will do part of the weapon control system for Trident at Feltham and Hamworth.



Thorn-EMI will produce electronic equipment for Trident at Feltham.

Sterling Metals at Dagenham are involved in the production of tubes to house the Trident missile.

Again, alongside each of these companies there will be a number of small to medium-sized companies producing components or supplying services. By 1988-9 the peak expenditure year for Trident, there could be between 2,000-4,000 jobs in London connected with nuclear weapons.

## Conversion Planning — Problems and Opportunities

12.45 National security is by definition a national government responsibility. There is no devolving of authority to local or regional government on these matters. Defence procurement decisions to spend, and on what, are taken nationally. Decisions not to spend; to cancel, slow down or cut production or personnel are taken nationally.

12.46 Regional employment planning, as far as defence is concerned, has tended to be a responsive art — welcoming new employment arising from an MoD decision and offering financial or infrastructure assistance to the contractor after the event; or alternatively, the regional planners have been required to mount some hurriedly-prepared rescue operation in the aftermath of the Defence Secretary's public announcement to cut or cancel a specific project or to close a particular location. Chatham and Portsmouth are recent examples of this.

12.47 The national, and heavily centralised decision-making character of the defence industry needs underlining. The Ministry of Defence with some 220,000 employees is the largest single government department. It employs 115,000 'industrials' in Royal Ordnance Factories, Royal Dockyards, Stores, Engineering, Research and Development and other establishments; and a further 107,000 'non-industrials' including 35,000 scientists and technologists.

12.48 Public ownership of major defence contractors such as British Shipbuilders, British Aerospace, British Leyland, UK Atomic Energy Authority, Short Bros, and Rolls-Royce means that government directly employs around 400,000 people in the defence industry — excluding the 328,000 armed forces personnel. As well as being the largest employer in the industry, the government is virtually the only customer. It buys from and sells to itself for most of the time.

12.49 The government will decide any changes in defence strategy or changes in procurement spending. The precise savings will be known in advance. So too will the impact on a particular company's order book and employment position. The ripple-effect on secondary industries and the community or region can be measured. And, most important, the government can decide the timing of changes.

12.50 With these known factors in the equation, transition without dislocation is possible — given willingness by a central government to plan in advance and to assist companies and communities in developing an alternative economic strategy making use of plant facilities, the technology and the skills of its workforce.

12.51 All of this points to the need for a national framework within which changes in defence strategy or changes in the direction of spending can be approached in a more systematic fashion, and which offers workplace representatives, local authorities and communities the opportunity of advanced information and a say in how best that change can be brought about. Such a framework with properly established institutions (say a National Industrial Conversion Commission), adequately funded by government and involving representatives of all interested parties, will be crucial in the event of any reduction in defence expenditure arising from arms control agreement or any phased disarmament programme.

12.52 Reductions in defence spending will affect different companies in different ways. A large part of the procurement budget is for products which have both a military and a civil use — for example, radio communications systems and sonar devices produced by Plessey at Ilford for the Royal Navy can be applied to merchant marine and offshore fishing vessels thus improving both safety and efficiency. In fact all of the components that go into ships, tanks and aircraft right down to switches, plastic tubing and nuts and bolts have an obvious civil use. For the companies making such products the problem is one of finding alternative uses to defence ones, rather than complete or radical change to the product. This probably applies to around 90% of the 10,000 companies tendering for MoD orders.

12.53 The remaining companies will need some change to their product. The difficulties of developing an alternative product should not be underestimated. Nor should the problems of matching that product to a real demand so that the new product is viable. The tendency within a defence plant, when considering what else to produce, will be to stick as closely as possible to existing skills and technology and to existing plant-layout and production flow-lines. For example, if British Aerospace at Kingston were to consider non-military alternatives to its Harriers and Hawks, it would first examine the possibility of civil aircraft rather than that of new energy sources, or construction, or medical equipment. There will be an obvious reluctance in any company to move too far from the product and the market areas it knows best. The disruption and uncertainty caused by the leap into a completely different field of work will be considered only as a last resort.

12.54 Financing such a change is unlikely to be undertaken by the defence contractor unless market surveys in the new product area give cast iron assurances of quick returns on investment. Or unless that change is heavily subsidised from outside the company. This implies that a crucial part of the conversion process is the planned redirection of industrial capacity now utilised by defence production towards civil ends. Whereas defence procure-



ment has been highly directed and interventionist the same cannot be said for public purchasing generally.

12.55 In 1983 the National Economic Development Office commissioned Sir Ieuan Maddock, former Chief Scientist at the Department of Industry, to conduct an enquiry into 'civil exploitation of defence technology'. One of his findings was that government departments tended to purchase their own civil equipment without a great deal of consultation with other departments buying similar equipment. For example different radio communications systems have been installed in police cars and ambulances: different electric typewriters, word processors and computers were in use throughout government departments.

12.56 Pointing to the fact that more than half the economy is in the hands of central and local government and public-sector authorities, Maddock recommended the setting up of a Central Purchasing Policy Unit which would harness (and publicise) a new civil market of similar proportions to that of MoD's procurement programme. Co-ordinating public sector purchasing in this way could help generate the 'market-pull' necessary to develop a higher level of technology transfer from military R&D to other civil sectors.

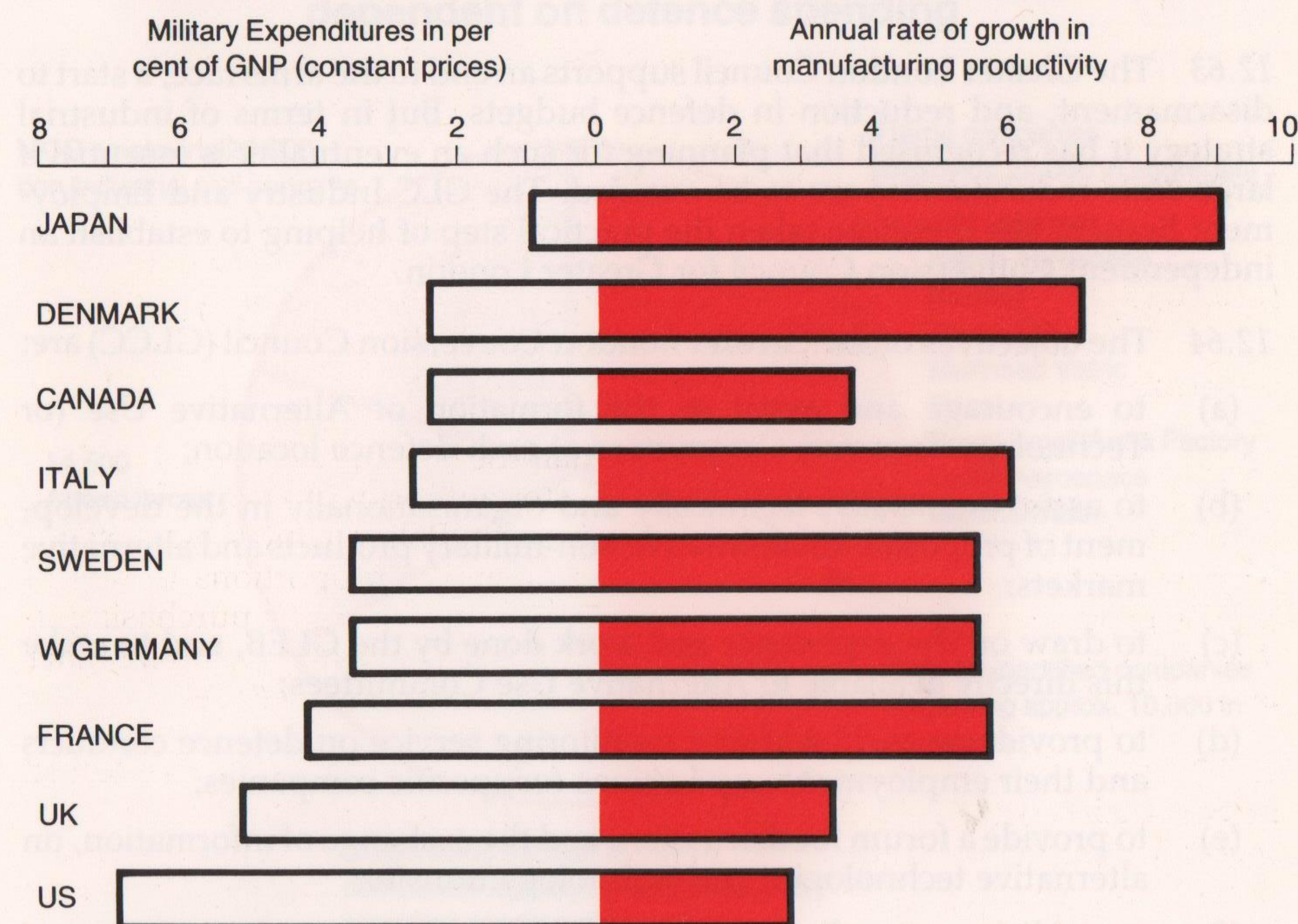
12.57 There is no shortage of alternative uses to which the resources released by conversion could be put. New forms of energy, environmental protection, medical equipment, more efficient transport systems, exploitation of the ocean's resources — these are only some of the areas which could be investigated.

12.58 There are similar possibilities for conversion of public expenditure in relation to the Third World. The government currently spends considerable sums in promoting arms sales to, often reactionary, Third World governments; these could be used instead to finance purchases of civilian equipment to meet genuine needs. The existing civilian aid programme could be expanded. But it is essential that the aid programme should not be used, as it now is, to create a market for frequently over-priced and uncompetitive British goods, especially when, as is often the case, such exports are for purposes of dubious relevance to real needs in the Third World, or may actually be harmful.

12.59 There is a need for new kinds of non-exploitative trading links with the Third World. The GLC has set up a new organisation, TWIN Trading, to show that such links are possible, through identifying the needs of progressive governments and organisations in the Third World and beginning to meet these needs from the resources available in London. TWIN Trading will seek to finance these transfers by marketing the products of Third World countries in Britain, including on a barter basis. Government aid programmes could, in future, increase the scale of such activities.

12.60 Because of its political significance, defence is one of the most cushioned of all industries. It has commanded a degree of commitment in expenditure and R&D that sets it apart from most other sectors. Over 50% of all

**Figure 2: Military burden and productivity 1960-1980**



Source: *World Military and Social Expenditures, 1982*

government funded R&D is spent on defence (£2,100 million in 1984-5). The Maddock enquiry, and indeed the MoD (more recently in response to such assessments), are critical of defence contractors' inability (or unwillingness) to exploit new ideas, arising from defence R&D within their own civil-sector operations. But government strategy remains predominantly to leave such 'spin-off' initiatives to the free play of market forces, a lack of industrial strategy which has so notably failed in sector after sector of the rest of British industry.

12.61 It cannot simply be presumed that high national defence expenditure is at the expense of industry more generally, although the negative correlation between military burden and productivity growth is striking (see Figure 2).

12.62 But in the UK, the weight of resources, skills and R&D devoted to defence within specific sectors, in particular those involving new technology, has undoubtedly weakened the already limp hand with which successive governments have grasped industrial policy. To summarise: the effect of military expenditure is to divert resources from alternative uses, to lower the level of employment, to stifle initiative and R&D in civil production and new technology and to weaken the institutional commitment to industrial policy.



## London's approach to conversion

12.63 The Greater London Council supports an end to the arms race, a start to disarmament, and reduction in defence budgets. But in terms of industrial strategy it has recognised that planning for such an eventuality is essential if large-scale redundancies are to be avoided. The GLC Industry and Employment Branch, has therefore taken the practical step of helping to establish an independent Conversion Council for Greater London.

12.64 The objectives of the Greater London Conversion Council (GLCC) are:

- (a) to encourage and assist in the formation of Alternative Use (or Technology Transfer) Committees at each defence location;
- (b) to assist financially, technically and organisationally in the development of proposals for alternative non-military products and alternative markets;
- (c) to draw on the experience and work done by the GLEB, and to make this directly available to Alternative Use Committees;
- (d) to provide an early-warning monitoring service on defence contracts and their employment implications for specific companies;
- (e) to provide a forum for discussion, and the exchange of information, on alternative technologies and technology transfer;
- (f) to publicise generally the need for conversion planning in advance of decisions to reduce defence expenditure.

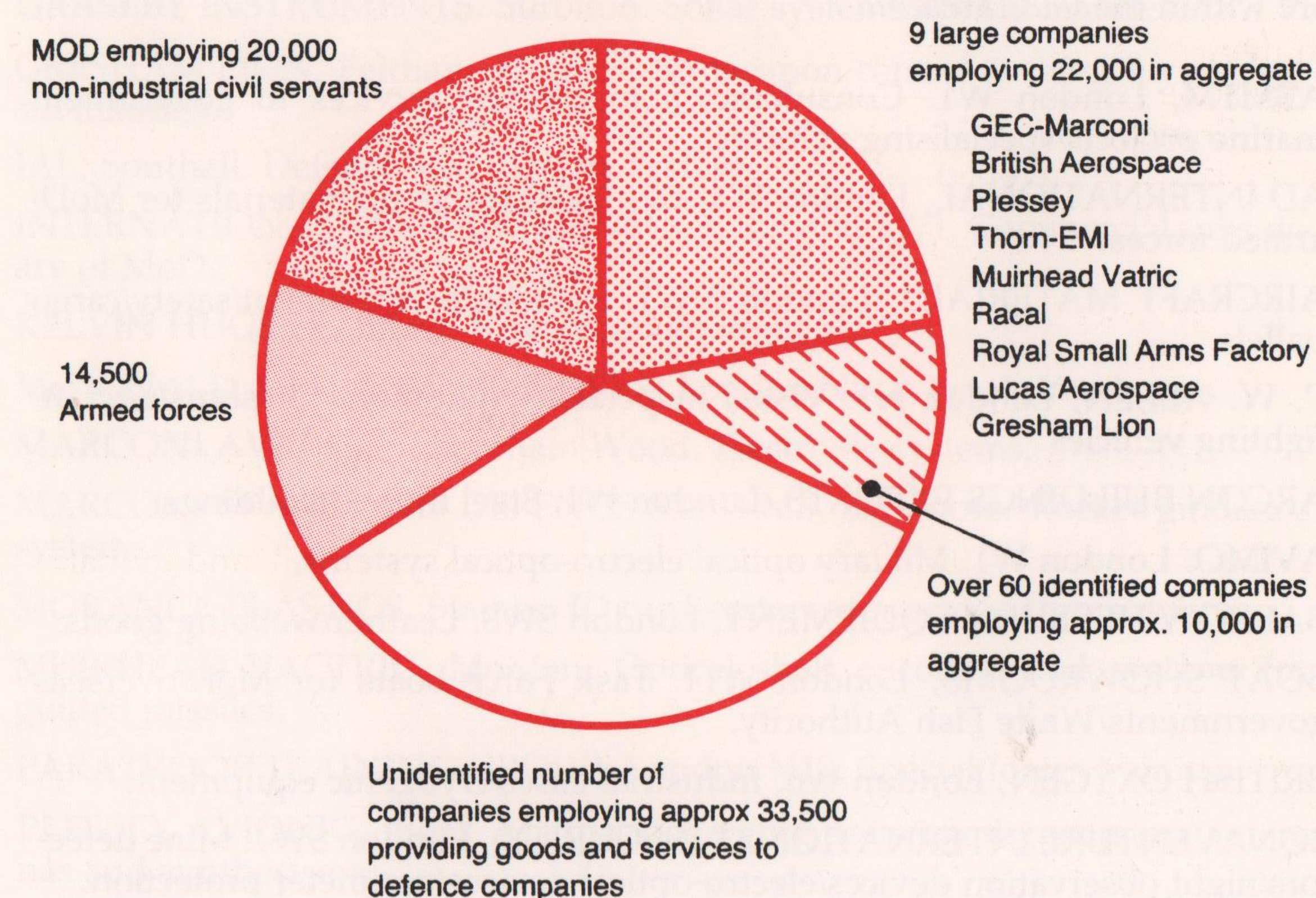
There are approximately 25 members on the Conversion Council combining a broad cross-section of interest from organisations and individuals.

12.65 The Conversion Council is being kept informed of the work involved in GLC's Third World project TWIN Trading, whose aim is to find new ways of opening up trade and technology-transfer between the developing economies and Europe. Members of the Conversion Council attended the Third World Trade and Technology Conference held in February 1985 and sponsored by the GLC and the European Commission.

12.66 The Conversion Council has initiated a competition among undergraduates in London's Universities and Polytechnics. The aim is to enable the problems and the opportunities presented by technology-transfer to be brought to the attention of future scientists, engineers and technologists currently being trained in London. The competition will encourage students to consider practical means by which conversion of military technologies to civil use can be exhibited as viable and relevant products. Successful students will receive between £200 and £500 towards their project costs based on the judges' assessment of likely expense and the value of their work.

12.67 The Conversion Council has identified some 70 companies in Greater

**Figure 3: Breakdown of 100,000 jobs in Greater London dependent on defence spending**



London whose products are dependent on defence spending. A special Conference organised by the Conversion Council to bring together shop stewards and union officials from these companies. The purpose of the Conference, held in March 1985 was, was:

- (a) to examine the prospect for jobs in London's defence sector;
- (b) to publicise the opportunities afforded by conversion planning;
- (c) to build contacts between the Greater London Conversion Council and shop stewards in defence companies.



## Companies Tendering for MoD Orders

The following companies tender for orders from the Ministry of Defence. All are within the GLC area.

ABMTM, London W1. Consultancy/management services to government marine projects/specialising vehicles.

AD INTERNATIONAL, London W1. Dental instruments/materials for MoD/armed forces.

AIRCRAFT MATERIALS, London NW1. Parachute equipment/safety/cargo pallets.

P. W. ALLEN, London N1. Visual inspection equipment for ships/aircraft/fighting vehicles.

ARCON BUILDINGS EXPORTS, London W1. Steel framed buildings.

AVIMO, London W1. Military optical/electro-optical systems.

BARROW HEPBURN EQUIPMENT, London SW8. Leather/webbing goods.

BOAT SHOWROOMS, London W14. Task Force boats for MoD/overseas governments/White Fish Authority.

BRITISH OXYGEN, London W6. Industrial gases/cryogenic equipment.

BONAVENTURE INTERNATIONAL (SECURITY), London SW1. Mine detectors/night observation devices/electro-optical devices/perimeter protection.

G & E BRADLEY, London NW10. Defence electronic equipment/navigation/video data.

BRITISH AEROSPACE, Kingston, Aircraft.

BROWNLIN, Hounslow.

HENRY BROWNE, Barking. Compasses.

CABLE AND WIRELESS, London EC1. Telecom equipment.

J. I. CASE, Feltham. Four wheel 'Rough Terrain' vehicles.

CHERNIDEEFF INSTRUMENTS, London W4. Electro-mag logs (all vessels).

CHLORIDE, London SW1.

CORINTRA METAL, London W8. Barbed wire: barbed tape concertina/distribution of mines and ammunition.

ELECTRO ACOUSTIC INDUSTRIES, London N15.

THORN EMI, Hayes. Sound and vision equipment - surveillance.

THORN EMI, VARIAN, Hayes. Microwave radar early warning.

THORN EMI, SYSTEMS AND WEAPONS DIVISION, Feltham. Missile fuses/ammunition and bombs.

EXPAMET EXPLOSAFE, London N7. Safe handling of liquids and explosives/containers.

FAIREY HYDRAULICS, Hounslow. Flight control actuators.

GRASEBY INSTRUMENTS, Surbiton. Sonar systems/RN submarines.

GRESHAM LION, Feltham. Underwater weapon control systems for nuclear submarines.

IAL, Southall. Defence and security systems.

INTERNATIONAL MILITARY SERVICES, London SW1. Commercial subsidiary of MoD.

KELVIN HUGHES, Ilford. Navigation equipment.

MCDONALD & JANE'S PUBLISHERS, London NW1. Jane's Yearbooks.

MARCONI AVIONICS, Boreham Wood. Electronic systems.

MARCONI SPACE AND DEFENCE SYSTEMS, Stanmore. Rocket guidance systems.

MORANCE PLASTICS, Staines. ID card systems for armed forces/police.

MUIRHEAD VACTRIC, Morden. Optical shaft encoders and systems for guided missiles.

PARATROOP TRAINING GROUP, London N19. Special forces training.

PLESSEY AVIONIC, Ilford. Manpack charging units/hand generators/antennas and synthesisers.

PORTALS WATER TREATMENT, Isleworth. Trailer-mounted water purification systems.

RACAL ACCOUSTICS, Wembley. Communications/helmets/headsets/headphones.

RACAL AUTOMATION, Ruislip. VHF Centremes.

REDFON, London SW18. Radio communications/navigation equipment.

ROCKWELL-COLLINS, Hounslow. Ground, airborne and marine radio communications.

ROYAL ORDNANCE FACTORY, Enfield. Small arms.

SAUNDERS-ROE, Hayes. Self-powered light sources/optical devices.

SESCO SECURITY, Hounslow. Surveillance cameras and other security equipment.

SMITHS INDUSTRIES, London NW2. Aviation and naval flight deck displays.

STERLING ARMAMENTS, Dagenham. Small arms/sub-machine guns.

UNITED SCIENTIFIC INSTRUMENTS, London W1. Weapon sights/periscope/binoculars/mine detection equipment/webbing/military clothing.



MAGNESIUM ELECTRON, Twickenham. Electron alloys.  
M. LAVRIER, London E15. Sandbags/barbed wire fencing.  
LASER ENGINEERING, London WC2. Tank suspension systems/transit containers for guided missiles.  
GEC - ELLIOTT INSTRUMENTS, London SE15. Nuclear controls/transducers.  
GEC - HIRST RESEARCH CENTRE, Wembley. Laser energy meters/laser rods.  
FRAZER-NASH, Hampton Wick. Ejection test seats/weapon release systems/skyflash.  
FIRMIN AND SONS, London W1. Ceremonial regalia/badges and ancillary equipment for uniforms.  
THOMAS FATTORINI, London W1. Badges and buttons/medals/decorations.  
AYRES AND SMITH, London SE22. Military caps/helmets.  
BARBED TAP CO, London W1. Barbed wire/mines.  
ARMALITE ALCOM, London W2. Bullet resistant cars.  
THORN LIGHTING, London N18.  
RICHARD UNWIN INTERNATIONAL, London W1. Paper targets/listening devices/sentry boxes.  
ANDRE RUBBER, Military Products Division, Surbiton. Rubber components for military vehicles/aircrafts.  
AERONAUTICAL AND GENERAL INDUSTRIES, Croydon. Aerial recce/Telecoms.  
BALFOUR BEATTY (BICC), Thornton Heath. Masts/towers for defence and communications systems/bridges/transmissions line towers.

Distribution of Armed Forces Personnel by Boroughs

The total number of personnel located in Greater London at 30 June 1982 was 14,543. The distribution by service was as follows:

	Males	Females
Royal Navy & Royal Marines	1,788	275
Army	7,122	1,001
Royal Air Force	3,935	462

Because data by local authority deployment is produced specifically for OPCS as a basis for their population estimates the numbers in MoD HQ offices in Greater London are not allocated in returns to individual boroughs since, unlike personnel in other service establishments, they may by necessity be resident in another area. Numbers so excluded from individual borough totals are as follows:

	Male	Female
Royal Navy & Royal Marines	1,503	248
Army	1,023	102
Royal Air Force	1,008	42

The numbers of borough can be classified thus; (bracketed figures indicate percentage of females).

Royal Navy and Royal Marines

- 1-50 — Croydon(0%), Harrow(0%), Hillingdon(0%), Lewisham(0%), City of London(0%), Redbridge(0%), Richmond upon Thames(32%), Westminster(0%).
- 50-100 — none
- 100-200 — Greenwich(6%)

Army

- 1-50 — Brent(0%), Bromley(4%), Croydon(0%), Ealing(0%), Hackney(11%), Hammersmith(0%), Havering(0%), Islington(0%), Kingston upon Thames(14%), Lambeth(0%), Lewisham(5%), Newham(0%), Redbridge(12%), Southwark(01%), Sutton(0%), Tower Hamlets(0%), Wandsworth(0%).
- 100-200 — none
- 101-200 — Kingston and Chelsea(2%), Richmond upon Thames(3%).
- 201-300 — Camden(2%).
- 301-400 — none
- 401-500 — none
- 501-1,000 — none
- 1,001-1,500 — Hounslow(18%)



1,501-2,000 — Greenwich(26%)  
2,001-2,500 — Westminster(3%)

Royal Air Force

1-50 — Croydon(0%), Greenwich(6%), Hounslow(0%), Kensington and Chelsea(0%), Lewisham(0%), Redbridge(14%), Richmond upon Thames(0%), Westminster(5%).  
51-100 — Camden(12%)  
101-200 — Kingston upon Thames(20%)  
201-300 — none  
301-400 — Barnet(3%), Bromley(19%), Harrow(13%)  
401-500 — none  
501-1,000 — none  
1,001-1,500 — none  
1,501-2,000 — none  
2,001-2,500 — Hillingdon(14%)

Boroughs not specified in the above lists contain no deployments of service personnel.

Proposals for action

1. The Greater London Conversion Council will continue its research and information work on London's defence sector. Particular attention now needs to be given to subcontracting, secondary supply companies, which are normally small to medium-sized and difficult to identify.

2. The Conversion Council will continue attempts to build relationships with those defence companies affected by job loss.

The Conversion Council will try to improve its monitoring function on specific military contracts thus enhancing its ability to provide an early-warning service to defence companies.

3. The Greater London Council will press government for better access to MoD information on future procurement plans.

4. The GLC will encourage other local and regional government bodies to provide resources for conversion-planning activity. The production of a single weapons system normally takes place in many different parts of the country before assembly. The cross-exchange of information gathered in each area would be useful to all.

5. The GLC will consider the feasibility of co-ordinating its purchasing power with that of other local/regional authorities. The size of the defence market is its main attraction. If sizeable civil markets could be generated, even in some product areas, they could provide the incentive to defence companies to make the change-over.

6. The GLC will consider the need for a national governmental framework for conversion, including the kind of institutional bodies best suited to assist defence companies in the event of reductions in defence expenditure. (The scale of the defence industry — £18 billion budget and one million jobs — suggests the need for a co-ordinated national approach.)

7. The GLC will consider a direct approach to those companies which would be affected by reductions in defence spending. Joint efforts could be made to measure (in advance) the impact of postponements, cuts or cancellations with a higher degree of accuracy, and to draw up contingency plans.



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## The London Industrial Strategy

The various chapters of the London Industrial Strategy are available singly as follows:

The food industry  
The furniture industry  
The clothing industry  
Retailing  
The cultural industries  
Domestic work and childcare  
Health care  
Vehicle manufacture/Motor components  
Instrument engineering  
Arms conversion  
Computer software  
Information technology and office work  
The printing industry  
Cable  
Homeworking  
Cleaning  
The tourism industries  
Public transport  
Energy  
Construction  
Heathrow and west London  
The docks

Each of these can be obtained free of charge from the address below.

The full text of the London Industrial Strategy, with an introduction, is available at £5.00 paperback or £15.00 cased post free from the address below.

Industry and Employment Branch  
Greater London Council  
Room 6b  
County Hall  
London SE1 7PB.